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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force	DATE: February 2011
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APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0207253F: <i>Compass Call</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	13.019	20.652	18.509	-	18.509	12.042	12.222	12.399	12.617	Continuing	Continuing
674804: <i>Compass Call</i>	13.019	20.652	18.509	-	18.509	12.042	12.222	12.399	12.617	Continuing	Continuing

Note

The program funding includes reductions for economic efficiencies that are not intended to impact program content. The efficiencies reduction total \$0.062M in FY12.

A. Mission Description and Budget Item Justification

The EC-130H COMPASS CALL is the USAF's wide-area, airborne Command and Control Warfare/Information Operations (C2W/IO) weapon system. The employment of this system interdicts our adversary's use of the electronic battlespace and is a key active component in the information battlespace and prosecution of overseas contingency operations. EC-130H COMPASS CALL's sophisticated electronic combat system is capable of surgical denial or disruption of adversary radio frequency (RF) communications systems and sensors. The system was fielded in 1983 and to date has evolved through the Block 35/Baseline 1 configuration. Due to the rapid advances in electronic attack technology, the EC-130H COMPASS CALL was designed to be easily modified and must continue to modernize and evolve to keep pace with adversary tactics and emerging technologies. Continuous system development is required to maintain battlespace superiority. The EC-130H COMPASS CALL program employs an incremental development and fielding strategy IAW AFD 63-1 that puts capability into the warfighters hands as soon as practical and ensures each iteration of the weapon system is effective against the highest priority threats. To sustain that process requires a steady stream of system development funds. Development funds are required to accomplish subsystem additions and improvements such as the digital signal analysis and exciter subsystem (AXE), the Special Purpose Emitter Array (SPEAR), Integrated Modern Communication Receiver, the Human-to-Machine Interface (HMI), network centric operations, phased array transmit and receive apertures and other classified hardware and software developments necessary to counter military and commercial communications evolutions, command and control operations enhancements, and new/emerging sensor developments. Funding in FY12 is required to support RDT&E efforts for Baseline 3 (BL3) upgrades to the EC-130H COMPASS CALL fleet. The BL2 and BL3 programmed requirements have advanced significantly over the two previously fielded baselines. BL2 and BL3 upgrades will help cover the electronic attack shortfall in the coming years. Obsolescence and diminishing manufacturing sources (DMS) are addressed with each baseline upgrade as well as annually as part of the sustainment responsibilities. Activities also include studies and analysis to support both current and future program planning and execution. This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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B. Program Change Summary (\$ in Millions)	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>
Previous President's Budget	13.019	20.652	18.571	-	18.571
Current President's Budget	13.019	20.652	18.509	-	18.509
Total Adjustments	-	-	-0.062	-	-0.062
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	0.054	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-0.054	-	-0.062	-	-0.062

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force								DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0207253F: Compass Call				PROJECT 674804: Compass Call			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
674804: Compass Call	13.019	20.652	18.509	-	18.509	12.042	12.222	12.399	12.617	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification											
<p>The EC-130H COMPASS CALL is the USAF's wide-area, airborne Command and Control Warfare/Information Operations (C2W/IO) weapon system. The employment of this system interdicts our adversary's use of the electronic battlespace and is a key active component in the information battlespace and prosecution of overseas contingency operations. EC-130H COMPASS CALL's sophisticated electronic combat system is capable of surgical denial or disruption of adversary radio frequency (RF) communications systems and sensors. The system was fielded in 1983 and to date has evolved through the Block 35/Baseline 1 configuration. Due to the rapid advances in electronic attack technology, the EC-130H COMPASS CALL was designed to be easily modified and must continue to modernize and evolve to keep pace with adversary tactics and emerging technologies. Continuous system development is required to maintain battlespace superiority. The EC-130H COMPASS CALL program employs an incremental development and fielding strategy IAW AFD 63-1 that puts capability into the warfighters hands as soon as practical and ensures each iteration of the weapon system is effective against the highest priority threats. To sustain that process requires a steady stream of system development funds. Development funds are required to accomplish subsystem additions and improvements such as the digital signal analysis and exciter subsystem (AXE), the Special Purpose Emitter Array (SPEAR), Integrated Modern Communication Receiver, the Human-to-Machine Interface (HMI), network centric operations, phased array transmit and receive apertures and other classified hardware and software developments necessary to counter military and commercial communications evolutions, command and control operations enhancements, and new/emerging sensor developments. Funding in FY12 is required to support RDT&E efforts for Baseline 3 (BL3) upgrades to the EC-130H COMPASS CALL fleet. The BL2 and BL3 programmed requirements have advanced significantly over the two previously fielded baselines. BL2 and BL3 upgrades will help cover the electronic attack shortfall in the coming years. Obsolescence and diminishing manufacturing sources (DMS) are addressed with each baseline upgrade as well as annually as part of the sustainment responsibilities. Activities also include studies and analysis to support both current and future program planning and execution. This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.</p>											
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: Baseline Upgrade Development							13.019	20.652	18.509	-	18.509
Description: Baseline 2 development, integration and test, and Baseline 3 non recurring engineering (NRE) and development											
FY 2010 Accomplishments: Baseline 2: Continued development, integration/ test and delivery of SPEAR classified techniques for new targets, Network Centric Operations and reach back capability. (Compass Call Operating System version 4.1,											

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B. Accomplishments/Planned Programs (\$ in Millions)											
						FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	
<p>a.k.a. CCOS 4.1). Continue development of Electronic Attack Waveforms against Advanced Commercial and Military Communications and Radar targets. Baseline 2 and SPEAR Generation 3 design through Preliminary Design Review.</p> <p>FY 2011 Plans: Baseline 2: Continue development, integration/ test and delivery of SPEAR classified techniques for new targets. (CCOS 4.2/4.3). Continue development of Electronic Attack Waveforms against Advanced Commercial and Military Communications and Radar targets. Baseline 2 and SPEAR Generation 3 design through Critical Design Review.</p> <p>FY 2012 Base Plans: Will continue Baseline 2 development, integration, and test of SPEAR classified techniques and electronic attack infrastructure, Network Centric Operations and Reachback Connectivity Capability. Initiate Baseline 3 development of Digital Signal Acquisition and Analysis Subsystem and Digital Exciter Subsystem, Modern communications receiver technologies, Human Machine Interface, Commercial Band Phased Array New Target Development, Advanced Commercial and Military Communications, Counter Radar and Counter Satellite Navigation Techniques, and Target Development.</p> <p>FY 2012 OCO Plans:</p>											
Accomplishments/Planned Programs Subtotals						13.019	20.652	18.509	-	18.509	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• APAF PE 0207253F: COMPASS CALL	44.968	230.357	320.822	12.000	332.822	66.627	180.456	74.620	72.902	Continuing	Continuing
• PE 0207253F: COMPASS CALL O&M	164.463	103.640	109.888	0.000	109.888	113.002	128.456	133.523	135.700	Continuing	Continuing
D. Acquisition Strategy											
EC-130H COMPASS CALL capability is maintained and baseline / incremental upgrades plus any quick reaction capabilities (QRC) developments are acquired through the 645th Aeronautical Systems Group (BIG SAFARI Program Office) in accordance with the BIG SAFARI Program Management Directive (PMD) and the BIG SAFARI Class Justification and Approval (J&A) document for acquisition of supplies and services using other than full and open competition criteria. The procured supplies and services are supported by the BIG SAFARI Life Cycle Management Plan (LCMP) across the full spectrum of system life cycle management from developmental											

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<p>engineering to system retirement ("cradle to grave" support). Due to the rapidly changing threat environment encountered during our prolonged commitment to Overseas Contingency Operations (OCO), the acquisition program manager has the authority to redirect funding as necessary to meet current stated and emerging Combatant Commander requirements.</p> <p><u>E. Performance Metrics</u></p> <p>Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force											DATE: February 2011			
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Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Mission Equipment	SS/CPFF	BAE Sytems:Nashua, NH	13.019	20.652	Nov 2010	18.509	Nov 2011	-		18.509	Continuing	Continuing	TBD
Subtotal			13.019	20.652		18.509		-		18.509			

Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000

Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000

Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000

			Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			13.019	20.652		18.509		-		18.509			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force			DATE: February 2011
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Baseline 2 Sub-System Additions and Emerging Technologies Enhanced Targeting Techniques Development, Integration and Test ending in the first BL 2 delivery	1	2010	1	2014
Baseline 3 Sub-System Additions and Emerging Technologies Enhanced Targeting Techniques Development, Integration and Test	2	2012	4	2016

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